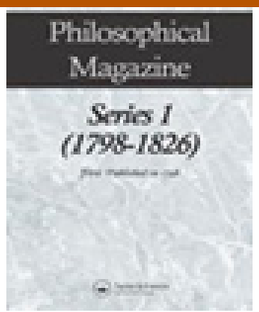

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VIII. Note on a variety of carbonated lime found near Port Seguin, Department of Vienne

C. Cressac

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aſpect is ſo peculiar that nothing can prove their identity but analyſis and the laws of ſtructure.

We ſhall compare this new variety of the epidote only with the phrenite, becauſe it is under this name that it is deſcribed by Sauſſure: it differs from it by its ſpecific gravity in the ratio of 33 to 36, and by its ſtructure, as it exhibits evident ſections in two directions, while the phrenite exhibits only one: in a word, it is not electric by heat.

The rock which accompanies it is compoſed of the ſubſtance of the garnet, the epidote itſelf, calcareous ſtone, and quartz. Theſe elements ſometimes are in proportions nearly equal; but it happens for the moſt part that the matter of the garnet predominates. In ſome ſpecimens the epidote is diſpoſed in thin zones between cryſtals of garnet, on which it is moulded: it appears alſo in amorphous maſſes pretty voluminous. Nothing certain can be ſaid in regard to its poſition; but it may be affirmed that it is found in the cavities or fiſſures of primitive mountains. We do not think that it has ever yet been found in its proper place by any naturaliſt; and the caſe is the ſame with the other productions of St. Gothard. The dealers in cryſtals go in queſt of them, and ſell them to travellers.

VIII. *Note on a Variety of carbonated Lime found near Port Seguin, Department of Vienne.* *By* C. Cressac, *Engineer of Mines* *.

THIS variety, which has not yet been deſcribed, reſults from a combination of the three following laws of decrement:

1ſt, That which produces the priſmatic by a decrement of two rows in the inferior angle *e* (fig. 5. Pl. III.)

2d, That which produces the inverſe by a row on the right and left of the angle E.

3d, That which produces the equi-axis by a decrement of one row on the edge B.

The repreſentative ſign of this variety, repreſented fig. 6, is $\overset{2}{e}\,\underset{c}{\overset{1}{E}}\,\underset{f}{\overset{1}{E}}\,\underset{g}{B}$; it has been called by C. Haüy *co-ordonate carbonated lime*. This name is deduced from the poſition of the facets produced by the three decrements in queſtion.

* From the *Journal des Mines*, No. 67.

Theſe

Theſe facets are ſituated on the ſame ſide, and are ſeparated by parallel ridges.

Inclination of c to g 116° 33′ 54″
———— of c to f 153 26 6
———— of g to f 143 7 48.

IX. *Experiments and Obſervations on certain Stony and Metalline Subſtances which at different Times are ſaid to have fallen on the Earth; alſo on various Kinds of Native Iron.* *By* EDWARD HOWARD, *Eſq. F.R.S.*

[Concluded from p. 336 of our laſt Volume.]

THE connection which naturally exiſts between one maſs of native iron and another, immediately turns our attention to the native iron in Siberia, deſcribed by Pallas; and this, we are told, the Tartars conſidered as a ſacred relic, which had dropped from heaven. The nickel found in the one maſs, and the traditionary hiſtory of the other, not to compare the globular bodies of ſtone from the Benares with the globular concavities and the earthy matter of the Siberian iron, tend to the formation of a chain between fallen ſtones and all kinds of native iron. How far any real affinity exiſts between theſe ſeveral ſubſtances, very obliging friends have afforded me an opportunity to form ſome judgment. I am indebted to Mr. Greville and Mr. Hatchett for portions of almoſt every known native iron; and the count de Bournon has done me the favour particularly to deſcribe them as follows.

Deſcription of various Kinds of Native Iron. By the Count de Bournon.

The great number of particles of iron, in a perfectly metallic ſtate, contained in the ſtone from Bohemia, and the ſaid particles being ſo near each other, naturally lead to ſome reflections reſpecting the exiſtence of native iron, which, by many mineralogiſts, is ſtill conſidered as problematical. Let us ſuppoſe for a moment, that theſe particles of iron were to approach ſtill more nearly to each other, ſo as abſolutely to come into contact, and in that manner to form a kind of chain, folded upon itſelf in the interior part of the ſubſtance, and leaving a great number of cavities between the links of the chain ſo folded. Let us then ſuppoſe, that the earthy ſubſtance with which theſe cavities are filled, being very porous, and having but a ſmall degree of conſiſtence, ſhould (as may happen by a variety of cauſes) be deſtroyed. It is